AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A multifunctional material characterized by having at least a surface layer comprising a carbon-doped titanium oxide layer, having the carbon doped in a state of Ti-C bonds, being excellent in durability, and functioning as a visible light responding photocatalyst, wherein the carbon-doped titanium oxide layer contains 0.3 to 15 at% of carbon.

2. (canceled).

3. (previously presented): The multifunctional material according to claim 1, characterized in that Vickers hardness of the carbon-doped titanium oxide layer is 300 or higher.

4. (original): The multifunctional material according to claim 3, characterized in that the Vickers hardness of the carbon-doped titanium oxide layer is 1,000 or higher.

5. (currently amended): The multifunctional material according to claim 1, characterized in that the multifunctional material is composed of the carbon-doped titanium oxide layer as the surface layer~~, and~~ provided on a core material, ~~and~~ wherein the core material is titanium, a titanium alloy, a titanium alloy oxide, or titanium oxide.

6. (currently amended): The multifunctional material according to claim 1, characterized in that the multifunctional material is composed of the carbon-doped titanium oxide layer as the surface layer~~, an intermediate layer, and~~ provided on a core material via an intermediate layer, wherein the intermediate layer is titanium, a titanium alloy, a titanium alloy oxide, or titanium oxide, and the core material is composed of a material other than titanium, a titanium alloy, and titanium oxide.

7. (previously presented): The multifunctional material according to claim 1, characterized in that the multifunctional material is powdery.

8. (previously presented): The multifunctional material according to claim 1, characterized in that the carbon-doped titanium oxide layer as the surface layer is bound via the Ti-C bonds to titanium, a titanium alloy, a titanium alloy oxide, or titanium oxide as a layer below the surface layer.

9. (previously presented): The multifunctional material according to claim 1, characterized in that the carbon-doped titanium oxide layer contains a titanium alloy component.

10. (currently amended): The multifunctional material according to ~~claim 1~~claim 9, characterized in that the titanium alloy is Ti-6Al-4V, Ti-6Al-6V-2Sn, Ti-6Al-2Sn-4Zr-6Mo, Ti-10V-2Fe-3Al, Ti-7Al-4Mo, Ti-5Al-2.5Sn, Ti-6Al-5Zr-0.5Mo-0.2Si, Ti-5.5Al-3.5Sn-3Zr-0.3Mo-1Nb-0.3Si, Ti-8Al-1Mo-1V, Ti-6Al-2Sn-4Zr-2Mo, Ti-5Al-2Sn-2Zr-4Mo-4Cr, Ti-

11.5Mo-6Zr-4.5Sn, Ti-15V-3Cr-3Al-3Sn, Ti-15Mo-5Zr-3Al, Ti-15Mo-5Zr, or Ti-13V-11Cr-3Al.

11. (original): A visible light responding photocatalyst characterized by having at least a surface layer comprising a carbon-doped titanium oxide layer, and having the carbon doped in a state of Ti-C bonds.

12. (currently amended): The multifunctional material according to ~~claim 2~~claim 1, characterized in that the Vickers hardness of the carbon-doped titanium oxide layer is 1,000 or higher.

13. (currently amended): The multifunctional material according to claim 12, characterized in that the multifunctional material is composed of the carbon-doped titanium oxide layer as the surface layer~~, and~~ provided on a core material, ~~and~~ wherein the core material is titanium, a titanium alloy, a titanium alloy oxide, or titanium oxide.

14. (currently amended): The multifunctional material according to claim 12, characterized in that the multifunctional material is composed of the carbon-doped titanium oxide layer as the surface layer~~, an intermediate layer, and~~ provided on a core material via an intermediate layer, wherein the intermediate layer is titanium, a titanium alloy, a titanium alloy oxide, or titanium oxide, and the core material is composed of a material other than titanium, a titanium alloy, and titanium oxide.

15. (currently amended): The multifunctional material according to claim 13, characterized in that the multifunctional material is composed of the carbon-doped titanium oxide layer as the surface layer~~, an intermediate layer, and~~ provided on a core material via an intermediate layer, wherein the intermediate layer is titanium, a titanium alloy, a titanium alloy oxide, or titanium oxide, and the core material is composed of ~~a material other than~~ titanium, a titanium alloy, ~~and~~ or titanium oxide.

16. (previously presented): The multifunctional material according to ~~claim 2~~claim 1, characterized in that the multifunctional material is powdery.

17. (previously presented): The multifunctional material according to claim 12, characterized in that the carbon-doped titanium oxide layer as the surface layer is bound via the Ti-C bonds to titanium, a titanium alloy, a titanium alloy oxide, or titanium oxide as a layer below the surface layer.

18. (previously presented): The multifunctional material according to claim 12, characterized in that the carbon-doped titanium oxide layer contains a titanium alloy component.

19. (currently amended): The multifunctional material according to ~~claim 12~~claim 18, characterized in that the titanium alloy is Ti-6Al-4V, Ti-6Al-6V-2Sn, Ti-6Al-2Sn-4Zr-6Mo, Ti-10V-2Fe-3Al, Ti-7Al-4Mo, Ti-5Al-2.5Sn, Ti-6Al-5Zr-0.5Mo-0.2Si, Ti-5.5Al-3.5Sn-3Zr-0.3Mo-1Nb-0.3Si, Ti-8Al-1Mo-1V, Ti-6Al-2Sn-4Zr-2Mo, Ti-5Al-2Sn-2Zr-4Mo-4Cr, Ti-

11.5Mo-6Zr-4.5Sn, Ti-15V-3Cr-3Al-3Sn, Ti-15Mo-5Zr-3Al, Ti-15Mo-5Zr, or Ti-13V-11Cr-3Al.

20. (currently amended): The multifunctional material according to claim 17, characterized in that the layer below the surface layer comprises a titanium alloy, and the titanium alloy is Ti-6Al-4V, Ti-6Al-6V-2Sn, Ti-6Al-2Sn-4Zr-6Mo, Ti-10V-2Fe-3Al, Ti-7Al-4Mo, Ti-5Al-2.5Sn, Ti-6Al-5Zr-0.5Mo-0.2Si, Ti-5.5Al-3.5Sn-3Zr-0.3Mo-1Nb-0.3Si, Ti-8Al-1Mo-1V, Ti-6Al-2Sn-4Zr-2Mo, Ti-5Al-2Sn-2Zr-4Mo-4Cr, Ti-11.5Mo-6Zr-4.5Sn, Ti-15V-3Cr-3Al-3Sn, Ti-15Mo-5Zr-3Al, Ti-15Mo-5Zr, or Ti-13V-11Cr-3Al.